



Application No. 10/808,121

Docket No.: V9661.0069

AMENDMENTS TO THE CLAIMS

1. (Withdrawn) An isolated hSARS virus having China Center for Type Culture Collection Deposit Accession No. CCTCC-V200303.
2. (Withdrawn) An isolated hSARS virus comprising a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1, a complement thereof, or a nucleotide sequence that hybridizes to SEQ ID NO:1 under stringent condition.
3. (Withdrawn) An isolated hSARS virus comprising a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:11, a complement thereof, or a nucleotide sequence that hybridizes to SEQ ID NO:11 under stringent condition.
4. (Withdrawn) An isolated hSARS virus comprising a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:13, a complement thereof, or a nucleotide sequence that hybridizes to SEQ ID NO:13 under stringent condition.
5. (Withdrawn) The hSARS virus of any one of claims 1-4 which is killed.
6. (Withdrawn) The hSARS virus of any one of claims 1-4 which is attenuated.
7. (Withdrawn) The attenuated hSARS virus of claim 6 whose infectivity is reduced.
8. (Withdrawn) The attenuated hSARS virus of claim 7 whose infectivity is reduced by at least 5-fold, 10-fold, 25-fold, 50-fold, 100-fold, 250-fold, 500-fold, or 10,000-fold.
9. (Withdrawn) The attenuated hSARS virus of claim 6 whose replication ability is reduced.

10. (Withdrawn) The attenuated hSARS virus of claim 9 whose replication ability is reduced by at least 5-fold, 10-fold, 25-fold, 50-fold, 100-fold, 250-fold, 500-fold, 1,000-fold, or 10,000-fold.

11. (Withdrawn) The attenuated hSARS virus of claim 6 whose protein synthesis ability is reduced.

12. (Withdrawn) The attenuated hSARS virus of claim 11 whose protein synthesis ability is reduced by at least 5-fold, 10-fold, 25-fold, 50-fold, 100-fold, 250-fold, 500-fold, 1,000-fold, or 10,000-fold.

13. (Withdrawn) The attenuated hSARS virus of claim 6 whose assembling ability is reduced.

14. (Withdrawn) The attenuated hSARS virus of claim 13 whose assembling ability is reduced by at least 5-fold, 10-fold, 25-fold, 50-fold, 100-fold, 250-fold, 500-fold, 1,000-fold, or 10,000-fold.

15. (Withdrawn) The attenuated hSARS virus of claim 6 whose cytopathic effect is reduced.

16. (Withdrawn) The attenuated hSARS virus of claim 15 whose cytopathic effect is reduced by at least 5-fold, 10-fold, 25-fold, 50-fold, 100-fold, 250-fold, 500-fold, 1,000-fold, or 10,000-fold.

17. (Currently amended) An isolated nucleic acid molecule comprising a nucleotide sequence encoding the hSARS virus ~~of any one of claims 1-4~~ having China Center for Type Culture Collection Deposit Accession No. CCTCC-V200303, or a complement thereof.

18. (Cancelled).

19. (Cancelled).

20. (Withdrawn) An isolated nucleic acid molecule comprising a nucleotide sequence having at least 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600 or 646 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:1, or a complement thereof.

21. (Withdrawn) An isolated nucleic acid molecule comprising a nucleotide sequence that encodes the amino acid sequence of SEQ ID NO:2 or a complement of said nucleotide sequence.

22. (Cancelled).

23. (Withdrawn) An isolated nucleic acid molecule comprising a nucleotide sequence having at least 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1,000, 1050, 1,100, 1,150, 1,200 or 1213 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:11, or a complement thereof.

24. (Cancelled).

25. (Withdrawn) An isolated nucleic acid molecule comprising a nucleotide sequence having at least 5, 500, 550, 600, 650, 700 or 729 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:13, or a complement thereof.

26. (Cancelled).

27. (Currently amended) The nucleic acid molecule of claim 17 or 146, wherein the molecule is RNA.

28. (Cancelled).

29. (Currently amended) The nucleic acid molecule of any one of claims 20, 21, 23, and 25 ~~and 26~~, wherein the molecule is RNA.

30. (Currently amended) The nucleic acid molecule of claim 17 or 146, wherein the molecule is DNA.

31. (Cancelled).

32. (Currently amended) The nucleic acid molecule of any one of claims 20, 21, 23, and 25 ~~and 26~~, wherein the molecule is DNA.

33-53. (Cancelled).

54. (Withdrawn) A method for detecting the presence of the hSARS virus of any one of claims 1-4 in a biological sample, said method comprising:

- (a) contacting the sample with a compound that selectively binds to said hSARS virus; and
- (b) detecting whether the compound binds to said hSARS virus in the sample.

55. (Withdrawn) The method of claim 54, wherein the biological sample is selected from the group consisting of cells, blood, serum, plasma, saliva, urine, stool, sputum, and nasopharyngeal aspirates.

56. (Withdrawn) The method of claim 54, wherein the compound that binds to said virus is an antibody.

57. (Cancelled).

58. (Withdrawn) The method of claim 54, wherein the compound that binds to said virus is a nucleic acid molecule comprising a nucleotide sequence having at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400,

450, 500, 550, 600 or 646 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:1, or a complement thereof.

59. (Cancelled).

60. (Withdrawn) The method claim 54, wherein the compound that binds to said virus is a nucleic acid molecule comprising a nucleotide sequence having at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1,000, 1,050, 1,100, 1,150, 1,200 or 1213 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:11, or a complement thereof.

61. (Cancelled).

62. (Withdrawn) The method of claim 54, wherein the compound that binds to said virus is a nucleic acid molecule comprising a nucleotide sequence having at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700 or 729 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:13, or a complement thereof.

63-74. (Cancelled).

75. (Withdrawn) A method for detecting the presence of a first nucleic acid molecule derived from the hSARS virus of any one of claims 1-4 in a biological sample, said method comprising:

- (a) contacting the biological sample with a compound that selectively binds to said first nucleic acid molecule; and
- (b) detecting whether the compound binds to said first nucleic acid molecule in the sample.

76. (Cancelled).

77. (Withdrawn) The method of claim 75, wherein the compound that binds to said first nucleic acid molecule is a second nucleic acid molecule comprising at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600 or 646 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:1, or a complement thereof.

78. (Cancelled).

79. (Withdrawn) The method of claim 75, wherein the compound that binds to said first nucleic acid molecule is a second nucleic acid molecule comprising at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1,000, 1,050, 1,100, 1,150, 1,200 or 1213 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:11, or a complement thereof.

80. (Cancelled).

81. (Withdrawn) The method of claim 75, wherein the compound that binds to said first nucleic acid molecule is a second nucleic acid molecule comprising at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700 or 729 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:13, or a complement thereof.

82-88. (Cancelled).

89. (Withdrawn) A host cell infected with the hSARS virus of any one of claims 1-4.

90. (Withdrawn) The host cell of claim 89 which is a primate cell.

91. (Withdrawn) The host cell of claim 90 which is a FRhK-4 fetal rhesus monkey kidney cell.

92. (Withdrawn) A host cell infected with the hSARS virus of claim 6.

93. (Withdrawn) The host cell of claim 92 which is a primate cell.

94. (Withdrawn) The host cell of claim 93 which is a FRhK-4 fetal rhesus monkey kidney cell.

95. (Withdrawn) A method of detecting in a biological sample the presence of an antibody that immunospecifically binds hSARS virus, said method comprising:

- (a) contacting the biological sample with the host cell of claim 89; and
- (b) detecting the antibody bound to the cell.

96. (Withdrawn) A method of detecting in a biological sample the presence of an antibody that immunospecifically binds hSARS virus, said method comprising:

- (a) contacting the biological sample with the host cell of claim 92; and
- (b) detecting the antibody bound to the cell.

97. (Withdrawn) An immunogenic formulation comprising an immunogenically effective amount of the hSARS virus of claim 5, and a pharmaceutically acceptable carrier.

98. (Withdrawn) An immunogenic formulation comprising an immunogenically effective amount of the hSARS virus of claim 6, and a pharmaceutically acceptable carrier.

99. (Withdrawn) An immunogenic formulation comprising an immunogenically effective amount of a protein extract of the hSARS virus of any one of claims 1-4 or a subunit thereof, and a pharmaceutically acceptable carrier.

100. (Withdrawn) An immunogenic formulation comprising an immunogenically effective amount of a protein extract of the hSARS virus of claim 6 or a subunit thereof, and a pharmaceutically acceptable carrier.

101. (Currently amended) An immunogenic formulation comprising an immunogenically effective amount of a nucleic acid molecule comprising a portion of SEQ ID NO:15 having at least 8,000 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:4, 11, 13 or 15, or a complement thereof, and a pharmaceutically acceptable carrier.

102-107. (Cancelled).

108. (Withdrawn) A vaccine formulation comprising a therapeutically or prophylactically effective amount of the hSARS virus of claim 5, and a pharmaceutically acceptable carrier.

109. (Withdrawn) A vaccine formulation comprising a therapeutically or prophylactically effective amount of the hSARS virus of claim 6, and a pharmaceutically acceptable carrier.

110. (Withdrawn) A vaccine formulation comprising a therapeutically or prophylactically effective amount of a protein extract of the hSARS virus of any one of claims 1-4 or a subunit thereof, and a pharmaceutically acceptable carrier.

111. (Withdrawn) A vaccine formulation comprising a therapeutically or prophylactically effective amount of a protein extract of the hSARS virus of claim 6 or a subunit thereof, and a pharmaceutically acceptable carrier.

112-114. (Cancelled).

115. (Currently amended) A pharmaceutical composition comprising a prophylactically or therapeutically effective amount of an anti-hSARS agent and a pharmaceutically acceptable carrier, wherein the anti-hSARS agent is a nucleic acid molecule comprising a portion of SEQ ID NO:15 having at least 8,000 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:15, or a complement thereof.

116-120. (Cancelled).

121. (Withdrawn) A kit comprising a container containing the immunogenic formulation of claim 97.

122. (Withdrawn) A kit comprising a container containing the immunogenic formulation of claim 98.

123. (Withdrawn) A kit comprising a container containing the immunogenic formulation of claim 99.

124. (Withdrawn) A kit comprising a container containing the immunogenic formulation of claim 100.

125. (Previously Presented) A kit comprising a container containing the immunogenic formulation of claim 101.

126-129. (Cancelled).

130. (Withdrawn) A kit comprising a container containing the vaccine formulation of claim 108.

131. (Withdrawn) A kit comprising a container containing the vaccine formulation of claim 109.

132. (Withdrawn) A kit comprising a container containing the vaccine formulation of claim 110.

133. (Withdrawn) A kit comprising a container containing the vaccine formulation of claim 111.

134. (Cancelled).

135. (Currently amended) A kit comprising a container containing the pharmaceutical composition of claim 115 or 117.

136. (Withdrawn) A method for identifying a subject infected with the hSARS virus of any one of claim 1-4, comprising:

- (a) obtaining total RNA from a biological sample obtained from the subject
- (b) reverse transcribing the total RNA to obtain cDNA; and
- (c) amplifying the cDNA using a set of primers.

137. (Withdrawn) The method of claim 136, wherein the set of primers are derived from the nucleotide sequence of the genome of the hSARS virus of Deposit Accession No. CCTCC-V200303.

138. (Withdrawn) The method of claim 136, wherein the set of primers are derived from the nucleotide sequence of SEQ ID NO:1, 11, 13 or 15, or a complement thereof.

139. (Withdrawn) The method of claim 136, wherein the set of primers have the nucleotide sequence of SEQ ID NOS:3 and 4, respectively.

140-143. (Cancelled).

144. (Withdrawn) An isolated hSARS virus having the nucleotide sequence of SEQ ID NO:15, a complement thereof, or a nucleotide sequence that hybridizes to SEQ ID NO:15 under stringent condition.

145. (Cancelled).

146. (Currently amended) An isolated nucleic acid molecule comprising a nucleotide sequence having at least ~~5, 10, 15, 20, 25, 30, 35, 40, 45, 100, 150, 200, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1,000, 1,050, 1,100, 1,150, 1,200, 2,000, 3,000, 4,000, 5,000, 6,000, 7,000, 8,000, 9,000, 10,000, 11,000, 12,000, 13,000, 14,000, 15,000, 16,000, 17,000, 18,000, 19,000, 20,000, 21,000, 22,000, 23,000, 24,000, 25,000, 26,000, 27,000, 28,000, 29,000~~ or 29,742 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:15, or a complement thereof.

147-150. (Cancelled).

151. (Withdrawn) A method for detecting the presence of the hSARS virus of claim 144 in a biological sample, said method comprising:

- (a) contacting the sample with a compound that selectively binds to said hSARS virus; and
- (b) detecting whether the compound binds to said hSARS virus in the sample.

152. (Withdrawn) The method of claim 151, wherein the biological sample is selected from the group consisting of cells, blood, serum, plasma, saliva, urine, stool, sputum, and nasopharyngeal aspirates.

153. (Withdrawn) The method of claim 151, wherein the compound that binds to said virus is an antibody.

154. (Withdrawn) The method of claim 151, wherein the compound that binds to said virus is a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1, 11, 13 or 15, or a fragment thereof, or a complement thereof.

155-157. (Cancelled).

158. (Withdrawn) A method for detecting the presence of a first nucleic acid molecule derived from the hSARS virus of claim 144 in a biological sample, said method comprising:

- (a) contacting the biological sample with a compound that selectively binds to said first nucleic acid molecule; and
- (b) detecting whether the compound binds to said first nucleic acid molecule in the sample.

159. (Withdrawn) The method of claim 158, wherein the biological sample is selected from the group consisting of cells, blood, serum, plasma, saliva, urine, stool, sputum, and nasopharyngeal aspirates.

160. (Withdrawn) A host cell infected with the hSARS virus of claim 144.

161. (Withdrawn) A vaccine formulation comprising a therapeutically or prophylactically effective amount of the hSARS virus of claim 144 and a pharmaceutically acceptable carrier, wherein the hSARS virus is killed.

162. (Withdrawn) A vaccine formulation comprising a therapeutically or prophylactically effective amount of the hSARS virus of claim 144 and a pharmaceutically acceptable carrier, wherein the hSARS virus is attenuated.

163. (Withdrawn) A vaccine formulation comprising a therapeutically or prophylactically effective amount of a protein extract of the hSARS virus of claim 144 and a pharmaceutically acceptable carrier.

164. (Cancelled).

165. (Currently amended) A vaccine formulation comprising a therapeutically or prophylactically effective amount of a nucleic acid molecule comprising a portion of SEQ ID NO:15 having at least 8,000 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:15, a complement thereof or a fragment thereof, and a pharmaceutically acceptable carrier.

166. (Withdrawn) A method for identifying a subject infected with the hSARS virus of claim 144, comprising:

- (a) obtaining total RNA from a biological sample obtained from the subject
- (b) reverse transcribing the total RNA to obtain cDNA; and
- (c) amplifying the cDNA using a set of primers.

167. (Withdrawn) The method of claim 166, wherein the set of primers are derived from the nucleotide sequence of SEQ ID NO:15, or a complement thereof.

168. (Withdrawn) The method of claim 54, wherein the compound that binds to said virus is a nucleic acid molecule comprising a nucleotide sequence having at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 100, 150, 200, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1,000, 1,050, 1,100, 1,150, 1,200, 2,000, 3,000, 4,000, 5,000, 6,000, 7,000, 8,000, 9,000, 10,000, 11,000, 12,000, 13,000, 14,000, 15,000, 16,000, 17,000, 18,000, 19,000, 20,000, 21,000, 22,000, 23,000, 24,000, 25,000, 26,000, 27,000, 28,000, 29,000 or 29,742 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:15, or a complement thereof.

169. (Withdrawn) The method of claim 75, wherein the compound that binds to said first nucleic acid molecule is a second nucleic acid molecule comprising at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 100, 150, 200, 300, 350, 400, 450, 500, 550, 600, 650,

700, 750, 800, 850, 900, 950, 1,000, 1,050, 1,100, 1,150, 1,200, 2,000, 3,000, 4,000, 5,000, 6,000, 7,000, 8,000, 9,000, 10,000, 11,000, 12,000, 13,000, 14,000, 15,000, 16,000, 17,000, 18,000, 19,000, 20,000, 21,000, 22,000, 23,000, 24,000, 25,000, 26,000, 27,000, 28,000, 29,000 or 29,742 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:15, or a complement thereof.

170. (Withdrawn) The method of claim 158, wherein the compound that binds to said first nucleic acid molecule is a second nucleic acid molecule comprising at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 100, 150, 200, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1,000, 1,050, 1,100, 1,150, 1,200, 2,000, 3,000, 4,000, 5,000, 6,000, 7,000, 8,000, 9,000, 10,000, 11,000, 12,000, 13,000, 14,000, 15,000, 16,000, 17,000, 18,000, 19,000, 20,000, 21,000, 22,000, 23,000, 24,000, 25,000, 26,000, 27,000, 28,000, 29,000 or 29,742 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:1, 11, 13 or 15, or a complement thereof.

171. (Withdrawn) The host cell of claim 160 which is a primate cell.

172. (Withdrawn) The host cell of claim 171 ~~[[wheih]]~~ which is a FRhK-4 fetal rhesus monkey kidney cell.

173. (Withdrawn) A method of detecting in a biological sample the presence of an antibody that immunospecifically binds hSARS virus, said method comprising:

- (a) contacting the biological sample with the host cell of claim 160; and
- (b) detecting the antibody bound to the cell.

174. (New) The nucleic acid molecule of claim 146 having the nucleotide sequence of SEQ ID NO:15.

175. (New) A host cell comprising the nucleic acid molecule of claim 17 or 146.

176. (New) The host cell of claim 175, which is a primate cell.

177. (New) The host cell of claim 176, which is a FRhK-4 fetal rhesus monkey kidney cell.

178. (New) A kit comprising a container containing the vaccine formulation of claim 165.